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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,258	03/30/2005	Miguel A. Linares	3DM P-308	4642
25686	7590	10/31/2008		
CARGILL & ASSOCIATES, P.L.L.C. 56 MACOMB PLACE MT. CLEMENS, MI 48043			EXAMINER NGUYEN, THUKHANH T	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 10/31/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Cargillpatents@usa.net

<b>Office Action Summary</b>	<b>Application No.</b> 10/530,258	<b>Applicant(s)</b> LINARES ET AL.	
	<b>Examiner</b> THU KHANH T. NGUYEN	<b>Art Unit</b> 1791	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-23 is/are pending in the application.
- 4a) Of the above claim(s) 21-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/15/07 &amp; 07/05/05</u> .                                 | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group I, claims 13-20 in the reply filed on 08/18/2008 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fried et al (6,589,470) in view of Goossens(5,056,998).

Fried discloses an apparatus for forming molded articles from particulate thermoplastic material, comprising two complementary molds (20, 40), wherein the mold (40) is mounted on a roller cart (52) and capable of moving along a trunion track (56), wherein the mold (20) has an open surface with a sealing edge (48) for mating with the other open mold (40), a heating station (Fig. 6, 110), a cooling station (Fig. 3) for cooling the heated mold.

However, Fried fails to disclose a first and second hopper with louvers for supply a first and second material.

Goossens discloses a molding apparatus for particulate material comprising a multiple hoppers (10-12) with louvers and material regulating valves (13-15) for supplying particulate material to a mold (1).

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It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Fried by providing hoppers with louvers and regulating valves as taught by Goossens in order to supply molding material to the mold apparatus in a controlled manner.

In regard to claim 14, Fried further discloses that the mold is made of aluminum (col. 5, lines 27-32) and comprises a heating plenums (Fig. 2; 28) attached to the back of the molds (40).

In regard to claim 15 and 16, wherein the heating chamber (28) is equivalent to the propane heating unit that is capable of being tipped over and that the molds are held at a predetermined positions for molding the particulate material (Figures 2A-2F).

In regard to claim 17, wherein the mold is rotate about a horizontal axis (58) on the roller card (52).

Since Fried discloses a rotational molding technique, in which the mold is rotatable into the molding position, during the rotation heat is applied to the mold to cause the material to melt (col. 1, lines 35-46), one of ordinary skilled in the art would have been motivated to provide material onto two rotatable molds so that the amount of material provided on each mold would be less than material being applied to one mold; thus, the melting time would be decreased and the molding process would be improved.

4. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fried ('470) and Goossens ('998) as applied to claims 13-16 above, and further in view of Lankheet (4,267,142).

Fried and Goossens fails to disclose a vacuum mechanism for collecting and transfer the excess material.

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Lankheet discloses a molding apparatus, comprising a trough (42) located around a perimeter of a mold (10) for collecting excess material, wherein the trough is connected to a vacuum passage (25) to facilitate the removal of the excess material (col. 4, line 55 to col. 5, line 8).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Fried by providing a vacuum mechanism connected to an excess collecting trough located around the mold as taught by Lankheet in order to facilitate the removal of the excess material.

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable Fried ('470) and Goossens ('998) as applied to claims 13-16 above, and further in view of Nohara et al (6,558,592).

Fried and Goossens disclose a cooling mechanism for cooling the back of the mold (Fig. 3), but fails to disclose a water spraying nozzles.

Nohara et al disclose a mold apparatus, comprising a plurality of water nozzles (20) located on the back of a mold (2, 3) and connected to a cooling water supply pipe (22) via cooling water valves (CV1, CV2).

It would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to modify Fried and Goossens by replace the cooling fan with or providing additional plurality of water nozzles as taught by Nohara et al in order to expedite the cooling process of the mold.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to THU KHANH T. NGUYEN whose telephone number is (571) 272-1136. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yogendra N Gupta/  
Supervisory Patent Examiner, Art Unit 1791

TN